Draft
Iowa
Rail System Plan
Update

Guiding Principles
And
Initiatives

11/4/2003

Prepared by the
Office of Systems Planning
and the
Office of Rail Transportation

Iowa's Rail System

A Transportation Network for the 21st Century

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Final Thoughts

Rail transportation in Iowa today is facing its own crossroads. It is the lifeline of our economy. Rail service is a critical factor in retaining and attracting industry. But the state faces some very serious decisions.

The manner in which we face these decisions will determine rail transportation's role in improving our state's productivity. Without clear, positive, and forthright objectives and policy, we are in danger of losing some of our rail system and its potential promise for guiding our state to a bright future.

Your opinions to the questions presented on page 10 are important to the department in developing our future rail initiatives. Please send your thoughts to us at

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Implementation Costs

Possible costs associated with the preceding actions are estimated based on the following assumptions.

Rehabilitation—the estimated cost is based on 2001 Heavy Axle Load Upgrade Report. All lines owned by Class II and III railroads and any Class I railroad line carrying less than five million gross ton miles per mile would be upgraded to carry 286,000-pound rail cars.

Purchase—all lines of regional and local significance identified on the stratification map (see pages 8 and 9) would need acquisition assistance. The cost to purchase each line is based on an average of $50,000 per mile.

Rail Passenger—the estimated cost is based on information developed for the Midwest Regional Rail Passenger Initiative.

The estimated maximum cost is presented in the table below. If the state were to provide a 20 percent match, Iowa's cost share would be an estimated $7.2 million per year for 20 years.

Estimated Maximum Cost Summary

	Miles	Total Cost	20 % State Share
Purchase	1,839	$ 92 mil	$ 18.4 mil
Rehabilitation	2,556	$386 mil	$ 77.2 mil
Rail Passenger	372	$242 mil	$ 48.4 mil
Total		$720 mil	$144.0 mil

Without some of this investment in Iowa's rail network, some rail abandonments will likely occur and Iowa's economy may suffer. Elevators may lose 1 to 10 cents per bushel, costing Iowa farmers $5 million to $50 million annually. Investments in the roadway system will increase, and the environment will suffer from the additional fuel consumed and engine emissions.

Background

The Transportation Commission has expressed concerns about rail transportation in the state. The department has also been concerned about a number of trends and developments in the rail area. None of the trends or concerns are particular to Iowa; they reflect regional and national issues that many states are experiencing. However, they are significant and require a certain level of understanding in order to base policy directions.

In order to better understand the trends and issues affecting rail transportation in Iowa, the department has:

- Developed a trend analysis and rail importance brochure
- Prepared a heavy axle load study
- Created a rail users advisory committee
- Discussed rail concerns and trends with both the rail users advisory and the railroad advisory committees
- Held roundtable discussions with railroads and rail users at Cedar Rapids and Fort Dodge

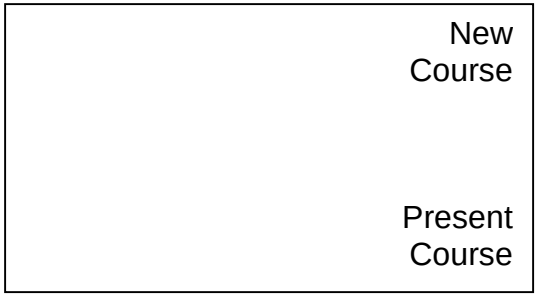
Most recently, the department presented a draft rail system stratification with proposed investment initiatives to the Commission for their consideration. The Commission then requested the department to seek public input on the stratification and initiatives to determine how the department can implement them to:

- Inform Iowans about the importance of our rail system;
- Define the department's role in maintaining; and improving the rail system.

Introduction

Iowa railroads serve a variety of customers hauling a wide spectrum of goods. They connect businesses with each other across Iowa, the nation and with markets overseas. They transport the coal that generates Iowa's electricity. They move grain and other raw materials into the production of countless goods. They deliver finished products to destinations across Iowa, the US and to ocean ports for export.

Rail service is an important component of Iowa's transportation system. But, the system has come to **"a fork in the road."**



Without major changes, many of Iowa's railroads will continue to struggle to earn sufficient revenues. Traffic originating and/or terminating in Iowa will deteriorate, and lines will be abandoned, further shrinking Iowa's system from 4,000 to 3,000 miles. As a result, there would be fewer railroads serving fewer communities; shippers will turn to other modes to transport their goods, have fewer transportation choices, potentially higher prices, and an overall detrimental impact on Iowa's economy.

However, with some forethought and investments, Iowa's rail system can flourish, attract new businesses, become self-sufficient over the long term, and boost Iowa's economy and competitiveness in the world market place.

3. Provision of Rail Passenger Service

Rail passenger service in Iowa currently plays a relatively minor role in moving people between cities. However, there has been a renewed interest in rail passenger service development as a transportation option for both leisure and business travel as well as for people who cannot or choose not to drive.

Iowa has been active in the planning for the Midwest Regional Rail Passenger Initiative. The Midwest Regional Rail Initiative is a nine-state effort to develop an improved and expanded regional passenger rail system radiating from Chicago. It will feature increased operating speeds, additional train frequencies, modern technology and customer-friendly amenities with downtown-to-downtown connections to major Midwest urban centers. This system will offer business and leisure travelers an attractive option for reaching major urban centers as well as smaller communities along the route. It also provides an alternative to driving congested urban highways and can compete with air service within a 300-mile distance.

Proposed Actions:

1. Ensure the development of rail passenger service through central Iowa proposed by the Midwest Regional Rail Passenger Initiative.
2. Nationally support federal legislation that would provide a long-term program to fund rail passenger service comparable to other modal funding programs.
3. Work with local communities in providing adequate depots to support service.

Proposed Actions:

1. Support federal and state initiatives that provide capital funding assistance for railroads.

2. Support applications by railroads, communities and others for federal funding on all stratification levels.

3. Participate in federal applications for infrastructure improvements by sharing the up-front costs.

4. Seek dedicated funding to restart the rail economic development program.

5. Expand the rail economic development program beyond immediate opportunities.

6. Develop a marketing plan with the railroads and Department of Economic Development to encourage new rail users to locate in Iowa or existing businesses to use rail.

Importance of Rail Service to Iowa

Iowa railroads and rail transportation have some distinct attributes and advantages because they:

- Serve all major urban areas, plus 90 counties in Iowa;
- Carry a variety of products from lumber to vegetables;
- One rail car hauls as much as 4 trucks;
- Save farmers 1¢ to 10¢ per bushel;
- Employ 4,100 people and contribute $230 million to Iowa's economy;
- Invest more than $225 million annually to maintain their system;
- Move 1 ton 400 miles for each gallon of fuel consumed; and
- Move freight safely.

Railroad worker incomes, railroad purchases, the value of railroad services, cost savings, and the impact of market access all flow through the Iowa economy, generating additional or retained incomes and jobs. Every dollar of direct benefits attributable to the availability of railroad service eventually translates into increased revenue for Iowa.

Trends Impacting Rail Service

A number of trends impacting rail service in Iowa were discussed with the Transportation Commission, railroad representatives and rail users. These trends include the following.

Rail

- Iowa's rail network size continues to slowly decline.
- Iowa rail originations and terminations have doubled during the last 15 years.
- Iowa rail traffic is expected to increase 50 percent by the year 2020.
- Farm products, food, coal and chemicals/fertilizers dominate Iowa rail movements.
- Rail traffic moving through Iowa has increased 2.5 times since 1985.
- Revenues per ton-miles have been declining from 2.64 cents to 1.53 cents since 1985.
- Railroad's return on investment has been less than the cost of capital, making it difficult to attract investments.
- Car capacity has increased by over 10 percent from 100 tons per car to 112 tons per car.
- Trains are getting longer with grain, coal, intermodal and other products moving in 100+ car shipments.

Bottom Line: Rail system is leaner, more effective and efficient, yet it is still not revenue adequate.

2. Rail Infrastructure Upgrading and Enhancement

Historically, railroads have not generated enough money to invest in capital projects to increase capacity. In addition, their return on investment has been less than their cost of capital, limiting their ability to attract new capital and borrow additional money. Iowa has been active in providing financial assistance to the railroads for upgrades to their facilities. However, due to budget constraints, both state and federal funding levels have been nearly eliminated.

Freight rail service is a critical factor in retaining and attracting industry to Iowa. Since 1974 the Department of Transportation has invested $10.2 million in state funds to preserve and improve the rail network for economic development. This modest investment, leveraged with $124 million of federal, shipper and railroad funds, has resulted in the upgrade of more than 2,700 miles of track and the creation or retention of more than 5,000 jobs. These created or retained jobs result in an annual payroll in excess of $100 million at a program cost of less than $1,000 per job. The preservation of the existing rail system also provides opportunities for companies to locate or expand in Iowa.

Actions for Lines of Regional Significance

These lines would be our next priority.

In order of preference, the state would:

1. Provide funding assistance to rehabilitate lines in partnership with railroads, shippers, locals, etc.;
2. Provide funding assistance to others to purchase the lines and keep them in operation;
3. Buy the lines and lease to an operator; and
4. As a last resort, buy the right of way to preserve for future use.

Actions for Lines of Local Significance

The future of these lines would be driven by local support. Local lines would be lower priority than the regional significant lines. In order of preference, the state would:

1. Provide funding assistance to rehabilitate lines in partnership with railroads, shippers, locals, etc.;
2. Provide funding assistance to others to purchase the lines; and
3. As a last resort, buy the right of way to preserve for future use.

Agriculture

- Increase in the concentration of grain and livestock operations.
  --Fewer farms especially those with less than 500 acres.
  --Farms with more than 500 acres are increasing.
  --Fewer farms raising livestock.
- More grain production.
- More elevators are joining together giving them multiple locations.
- Shift to larger grain load-out facilities.
  --25-car to 50-car
  --75-car to 100-car
- More grain is being delivered directly from farms to processors and feeders rather than to local elevators.
- More value adding activities including livestock feeding and processing (ethanol and soy diesel).
- More semis owned by farmers.
  --Number doubled from 1995 to 2000
  --Expected to increase another 33 percent by 2005
- The share of grain moved in semis off the farm increased from 36 percent in 1995 to 47 percent in 2000.

Bottom Line: Agriculture and agriculture transportation needs have changed significantly. Consolidation is key.

Coal

- Iowa coal consumption has increased by 70 percent during the last 15 years.
- Rail terminations of coal increased by 118 percent since 1985.

Bottom Line: More rail movements of coal are expected to generate more electricity.

Intermodal

- U.S. intermodal traffic has doubled since 1985.
- Fewer transfer facilities in Iowa.
- Increase in intermodal transfers in regional facilities located outside of Iowa such as Chicago.

Bottom Line: Intermodal traffic is growing, but the transfers are made outside of Iowa.

Future Outlook for Iowa Rail Service

- More rail freight traffic
- Larger cars and longer trains
- Fewer rail shipping points
- More truck movements to rail sites and local markets
- More consolidations
  --fewer, larger farms
  --fewer, larger elevators
  --fewer, larger railroads
- Inadequate revenues to reinvest in the rail system

Bottom Line: These trends point to an Iowa rail system with fewer rail facilities shipping larger shipment sizes. Railroad revenues will continue to be inadequate for investments to preserve the existing system and increase system capacity. Iowa may likely see additional rail abandonments. Additional truck movements will be required to service these points, adding stress to the roadway system.

1. Preservation of the Rail System

The rationalization of Iowa's rail system has been going on during the last 25 years. While that process has been somewhat successful, Iowa is at a point where we may need to keep what we have left. We need to encourage shippers to use rail transportation. With freight traffic expected to double during the next 20 to 30 years, it will be important to keep a rail system so that highways don't become overburdened. Preservation of the existing rail system is our highest priority. Therefore, the proposed actions to preserve our system include:

Proposed Actions:

<u>In general</u>

1. Ensure there is no further loss of rail right of way, i.e., no more abandonments.
2. Support federal/state legislative actions that will recapitalize the rail system across the country.

<u>Actions for Lines of National Significance</u>

Nothing specific, as we assume these lines will always be there to provide service.

<u>Actions for Lines of Multi-State Significance</u>

Our focus and highest priority will be on preserving rail service on these lines. The state would:

1. Provide funding assistance to rehabilitate lines;
2. Encourage appropriate mergers/acquisitions of these lines when the lines are in jeopardy of being abandoned; and
3. Provide funding to aid in ownership changes, when necessary, to ensure these lines stay in operation.

Proposed Directions

Input received from the railroads, rail users and the several roundtable discussions was used in developing the state's future role for rail transportation in Iowa. However, the effort is not complete, we need your assistance.

Some questions to consider in reviewing the proposed directions include:

1. Are there other trends that will affect Iowa's rail system?
2. Is the rail system stratified correctly?
3. Should all rail lines in the state be saved?
4. Should taxpayers' money be used to invest in
   a. Rehabilitating lines?
   b. Purchasing lines?
   c. Subsidizing service?
5. How should investments be financed?
6. Should the state invest in or own intermodal or transload facilities?
7. How much is the opportunity to have rail service worth for economic development purposes?
8. Should state funds be used to invest in rail passenger service?

Rail System Stratification

Purpose

The purpose of stratification is to identify lines that are critical to the overall transportation system and thus have a tool for making investment decisions. Rail stratification will be considered in the development of rail policy and investment guidelines.

4-Level Rail System

Line use, national defense rail network, connectivity, and area service were used to stratify Iowa's rail system into 4 levels.

Level	Criteria
National	• Lines on the national defense system • Major main lines with density greater than 20 million
Multi-State	• Lines connecting to major gateways outside of Iowa • Lines with density from 5 to 20 million
Regional	• Lines with density less than 5 million • Lines with two different shipping directions • Lines serving more than 3 counties
Local	• Lines with density less than 5 million • Lines with only one directional outlet • Lines serving 3 counties or less

The stratified Iowa rail network is presented on the following map. Rail service by level is shown in the following table.

	National	Multi-State	Regional	Local
Miles	25%	30%	34%	11%
Ton Miles	86%	11%	3%	0.1%
Iowa Carloads	27%	36%	31%	6%
Counties	42%	36%	20%	3%
Population	52%	32%	11%	5%
Elevators	29%	22%	36%	13%
Coal Capacity	72%	27%	1%	0%
Grain Processors	32%	29%	39%	0%